

Burnout syndrome in nursing assistants of a public hospital in the state of São Paulo

Síndrome de burnout em técnicos de enfermagem de um hospital público do Estado de São Paulo

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ABSTRACT: *Introduction:* The burnout syndrome is a psychosocial phenomenon that arises as a response to chronic interpersonal stressors present at work. There are many aspects that make nursing assistants vulnerable to chronic stress situations that may lead to burnout, highlighting the low degree of autonomy in the healthcare staff and spending more in direct contact with patients. *Objectives:* To assess the prevalence of the burnout syndrome in nursing assistants in a public hospital, as well as its association with socio-demographic and professional variables. *Methods:* A socio-demographic and professional questionnaire and the Maslach Burnout Inventory (MBI-SS) were applied to 534 nursing assistants. *Results:* The prevalence of burnout syndrome among nursing assistants was 5.9%. High emotional exhaustion was observed in 23.6%, 21.9% showed high depersonalization, and 29.9% low professional achievement. It was found statistically significant associations between emotional exhaustion, job sector and marital status; depersonalization, having children and health problems; low professional achievement and job sector and number of jobs. There was association between job satisfaction and the three dimensions. *Conclusion:* Professionals working in the health area must pay intense and extended attention to people who are dependent upon others. The intimate contact of the nursing assistants with hard-to-handle patients, as well as being afraid to make mistakes in healthcare are additional chronic stress factors and burnout syndrome cases related in this study.

Keywords: Burnout, professional. Nursing care. Occupational health. Public health. Mental health. Hospitals, public.

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RESUMO: *Introdução:* A síndrome de burnout é um fenômeno psicossocial que surge como resposta aos estressores interpessoais crônicos presentes no trabalho. Vários são os estressores que fazem dos técnicos de enfermagem profissionais vulneráveis a situações cotidianas de estresse nas atividades de trabalho que podem desencadear essa síndrome, em destaque a baixa autonomia desse profissional dentro da equipe de saúde e o maior tempo de contato com os pacientes. *Objetivos:* Avaliar a prevalência da síndrome de burnout em técnicos de enfermagem de um hospital público universitário e sua associação com as variáveis sociodemográficas e profissionais. *Métodos:* Foi aplicado um questionário com informações sociodemográficas e profissionais e o Inventário de Burnout de Maslach (MBI-SS) para 534 profissionais. *Resultados:* A prevalência da síndrome de burnout entre os técnicos de enfermagem foi de 5,9%. Além disso, 23,6% desses apresentaram alto desgaste emocional; 21,9% alta despersonalização; e 29,9% baixa realização profissional. Houve associação estatisticamente significativa do desgaste emocional com setor de trabalho e estado civil; despersonalização com possuir filhos e apresentar problemas de saúde; e baixa realização profissional com setor de trabalho e número de empregos. Houve associação de satisfação no trabalho com as três dimensões. *Conclusão:* O trabalho em saúde exige dos profissionais uma atenção intensa e prolongada a pessoas que estão em situação de dependência. Para os técnicos de enfermagem, o contato íntimo com os pacientes de difícil manejo e o receio de cometer erros no cuidado são fatores adicionais de estresse crônico e casos de burnout evidenciados neste estudo.

Palavras-chave: Esgotamento profissional. Cuidados de enfermagem. Saúde do trabalhador. Saúde pública. Saúde mental. Hospitais públicos.

INTRODUCTION

The work has an essential importance within the context of people's lives. However, the same work that dignifies, builds identity, grants growth and recognition to the human being may also be the source of suffering and physical and mental sickening¹. In health area, the purpose of work is man itself: the patient or user of health services. Health professionals are exposed do numerous stressful and wearing situations resulting from the everyday contact with frail or sickened people, besides having to deal with tense interpersonal and hierarchical relationships in health institutions. Working at a hospital requires a high level of collaborations amongst several professionals, from different areas of expertise and positions in the network of patient's care, demanding a coordinated and collective work effort². The shift journeys and work rounds also contribute to a cognitive and emotional overload by the health professionals who work in these institutions³.

In the health and hospital segment, it is observed a rapid and continuous technological development, a subdivision of work and the expansion of the specialties. The authority hierarchy is enhanced, with formal communication channels and a great set of rules and regulations for its functioning. This enables the rising of conflicts among professionals of the same level, both between those and their managers and their administration itself⁴. These work organization factors within hospitals, added to the precariousness of work conditions, may put these health professionals into risk of the burnout syndrome (BS).

The BS is a psychosocial phenomenon which rises as an answer to chronic interpersonal stressors observed in work. This syndrome is the expression of a continuous process, with feelings of inadequacy in relation to the work and the lack of resources in order to perform it. The causes of physical and emotional exhaustion are more often located in the individual's work environment rather than in the individual themselves; with emphasis on excessive work, lack of control in prioritizing, financial compensation and insufficient recognition, competitiveness and lack of solidarity among peers and equality on behalf of the colleagues in the organization⁵. For Maslach and Jackson⁶, the BS consists of three dimensions: (1) emotional exhaustion (EE): strong feeling of emotional tensions, sensation of exhaustion and of lack of energy and emotional resources in order to deal with the routines of professional practice; (2) depersonalization (DS): emotional insensitivity by the professional, leading to a cold and impersonal contact approach towards the ones receiving their services; and (3) low professional accomplishment (LPA): negative self-evaluation, associated to dissatisfaction and to discouragement as to work and to professional accomplishment itself, whose sensation of bad resulting leads to a feeling of incompetence. These dimensions depend on personal, labor, organizational and social characteristics^{4,7}.

There is a high number of studies on burnout and nursery workers^{4,10-12}. This professional category presents an elevated level of stress and lower work satisfaction, especially because of changes in the labor process¹³. The level of stress perceived by the professional depends on their perception in relation to degree of the support of the work organization and the individual defense capacity as for the coping strategies at work^{14,15}.

In Brazil, the researches on BS in health professionals, performed especially in hospitals, assess this syndrome among doctors, nurses and assistant nurses¹⁶⁻²¹. There is still no consensus in literature in relation to the cutoff points for the assessment of burnout dimension, which explains differences in the prevalence between the same professional categories⁸.

The workers of the nursing team, particularly, face the lack of preparation in order to face their emotional demands and the ones of patients taken by different health problems and their families. These professional have a higher, straighter and more continuous interaction with their patients. They usually remain longer in the organization, confronted daily with another's pain and suffering and death, without any support, exposed to a psychological burden that, if added to other poor work

conditions, may provide with important mental distress and with symptoms of physical and mental exhaustion³.

The nursing technician is one of the professionals within the health team with the least autonomy. The practical difficulty in defining the roles for nurses, technicians and assistant nurses enhances this aspect. A research on BS in workers of a nursing services, in which 70% were nursing technicians²², has evidenced the prevalence of BS at 35.7% of the interviewee, considering as a burnout criteria the elevated level of one of their dimensions²³.

It is common among health professionals, including among nurse technicians, the existence of various employment bonds, whether by the availability of time schedules or by the need to survive, which may result in excessive work and long exhausting working hours^{24,25}. The lack of recognition and professional appreciation may generate a feeling of worthlessness, referring back to lack of qualification and the purpose of the work²⁶. The technicians and auxiliary nurses are the members of the assistance team who spend the most time in direct contact with patients and their families. These professionals live with the pain, the fear of death and even with the patients' body fluids. All these aspects make nursing technicians most vulnerable to a chronic stress situation which may lead to a BS¹⁷.

Considering the above, it is highlighted the relevance of choosing a hospital unit, as a field of study, whose dynamics and complexity of the work and its organization expose their workers to stressful factors which may compromise health and dispensed health care themselves.

This study aimed at evaluating the BS among nurse technicians of a reference school and public hospital in the city of Campinas, São Paulo, and its association to sociodemographic and professional variables.

METHOD

It is a cross-sectional, epidemiological study, carried out at a high complexity Public School Hospital, which has 403 beds, where ambulatory consultations, elective and urgent or emergency surgeries are performed. In this hospital complex, there are 3,100 people working, responsible for 115 thousand care services, 15 thousand surgeries and 350 thousand annual consultations.

The Human Resources Department of the hospital provided (in June 2011) a list with 842 nursing technicians, 720 active ones and 142 ones away from work due to prize license or medical leave. From the active ones, 24 of them were not located and after three contact attempts they were considered lost. From the actives, 32 of them did not return the questionnaire and 10 workers did not sign the Informed Consent. Besides that, 140 questionnaires of those professional who worked in the hospital for less than a

year were excluded (exclusion criteria). Therefore, the final study population totaled 538 nursing technicians.

The questionnaires were applied individually, between July and September 2011, at the place and time of work, respecting the convenience of each sector. The questionnaire consisted of two sets of questions. In the first set of questions, there were collected variables such as sociodemographic (gender, age, marital status, having or not having children and leisure activities), professional (time working and graduating, working regime, workload, work sector, number of jobs) and satisfaction at work (evaluation of the importance of work for themselves, for patients, for their bosses and institution through the awarding of a value from zero to ten, according to importance perception) ones. In the second set we applied the Maslach Burnout Inventory – Human Services Survey (MBI-HSS), translated and validated in Brazil by Lautert¹³.

In order to adapt the contents of the variables of the questionnaire, a pilot study with 20 nursing technicians was conducted. The criterion used was the choice of the first two names of each work sector from a given list. From these, 14 subjects met the inclusion criteria and joined the final sample.

The MBI-HSS is a questionnaire consisting of 22 items, distributed in three dimensions. The score of the subject is calculated by the sum of the points of the items related to each of the dimensions. The MBI-HSS handbook has, as a principle for the diagnosis of the BS, the obtaining of a high level of EE and DS, associated to BRP (reverse scale). Therefore, the professional's job description in these dimension criteria indicates the manifestation of the BS.

In the Brazilian instrument, the original EE name was changed into emotional distress (ED). There was no change for the BRP and DS dimensions. The Likert scale, proposed by the author, was used with a scoring from zero to four, being zero for “never”; one for “a few times a year”; two for “a few times a month”; three for “a few times a week”; and four for “daily”¹⁰.

In order to analyze the internal consistency of the three domains of the Maslach Burnout Inventory (emotional distress, depersonalization and low professional fulfillment), the alpha Cronbach coefficient was used. Alpha values above 0.70 indicate high internal consistency. In the original version, the EE reliability was 0.90, DS was 0.79 and BRP, 0.71. In the Portuguese version, translated and validated by Lautert¹⁰, the reliability was 0.86 for EE, 0.69 for DS and 0.76 for BRP. This ensures the reliability of the instrument for the given study. In general, the EE factor is always presented as the most consistent factor and DS as the least consistent one¹⁰.

There is still no standard (cutoff points) for the Brazilian population as for the classification of the syndrome on levels (low, medium, high), according to the original version by Cristina Maslach. Thus, Lautert¹⁰ adopted quartiles as cutoff lines, so that scores lower or equal to 25% are considered low, moderate between 25 and 75% and elevated, those above 75%. This study adopted these criteria, once it used the translated and validated version by this author.

The data analysis was performed by the statistical software SPSS, version 19.0. In order to verify and correct eventual information typing errors of the questionnaire, a descriptive analysis of the data was performed with a simple tabulation of the studied variables. The results of the continuous variables were grouped in class intervals.

A double entry table was used in order to verify possible correlations of the burnout dimensions and the main studied variables. In order to confirm the association between these variables, the χ^2 test was used, with a descriptive level lower than 5% ($p \leq 0.05$).

This research project was previously submitted and approved by the Research Ethics Committee of the *School of Medical Sciences* of the *Universidade Estadual de Campinas*, under No 059/2011.

RESULTS

In relation to the sociodemographic characteristics of the subjects in the research, it was verified that most of them (84.6%) were female and 38 years old on average, with standard deviation (SD) of 9.6. Married or living with a partner people represented 56.1%, considering that 66.4% of them had children.

The average time these professional had been graduated was 12.2 years (SD = 6.8). As for their educational level, 40.7% of these professionals had a college degree in nursing (94.5%).

Regarding the professional characteristics of the subjects in the research, 87.5% of nursing technicians worked shifts, and from those, 60% of them in fixed shifts. The average amount of weekly working hours was 48.12 (SD = 12.7), considering only the job in the studied institution. They are all exam admissioned professionals for the position of nursing technician, even if having a college degree on nursing. Most of them worked only in the studied institution.

Approximately 20% of them informed working elsewhere. There is no possibility of internal function mobility. This condition depends exclusively on the opening of new vacancies for the position at matter through exam admission.

Most professionals (69%) had at least one leave due to health problems within the last two years. From these leaves, 23.9% were due to musculoskeletal causes and 4.8% of them were attributed to mental disorders. The main difficulties pointed out at work by the technical nurses were: lack of professional appreciation (72%), physical overload (65%), emotional overload (63%), insufficient number of co-workers (61%) and biological hazard (50%).

In the subjective perception on the importance of work for themselves and for others, in an analogical scale from 0 to 10, the technicians addressed a higher score for themselves and for patients (mean = 9.54), when compared to the assessment made by their bosses and the hospital (mean = 8.12). The technicians also considered important the help of peers and the support of the team (average of 7.93 and 7.22, respectively).

In relation to their free and leisure time, 84% of them stay home, dedicating themselves to house chores, 63% of them watch TV and 20% of the subjects in the research state not having free time because they worked in other places during their days off.

Regarding the results of the SB dimensions' evaluation, described in Table 1, it was verified that 23.6% of the nursing technicians presented elevated ED scores, 21.9% for DS and 29.9% for BRP.

In order to analyze the prevalence of the syndrome in its set (for the three grouped dimensions) the criteria presented by Ramirez et al. were followed²³. These authors define

Table 1. Prevalence of the burnout syndrome in nurse technicians of a public hospital in the state of São Paulo.

Dimension levels	Cutoff points	n = 534	%
Emotional exhaustion			
Low	≤ 10	135	25.1
Moderate	11 to 21	273	50.7
High	> 21	127	23.6
Depersonalization			
Low	≤ 2	162	30.1
Moderate	3 to 8	255	47.4
High	> 8	118	21.9
Professional fulfillment			
Low	≤ 20	161	29.9
Moderate	21 to 27	282	52.4
High	> 27	92	17.1

Table 2. p-value of the associations between sociodemographic and professional variables and the dimensions of the burnout syndrome in nurse technicians of a public hospital in the state of São Paulo.

Characteristics	Emotional exhaustion	Depersonalization	Professional fulfillment
Field	0.015*	0.061	0.010*
Marital status	0.013*	0.198	0.959
No of employments	0.425	0.456	0.013*
Children	0.688	0.046*	0.185
Health problems	0.001*	0.011*	0.306
Satisfaction	0.001*	0.001*	0.002*

*p ≤ 0.05.

burnout when observed high EE and DS scores and low personal fulfillment scores. The number of subjects presenting, at the same time, high ED, DS and BRP scores were processed according to the quartiles and it was verified that 5.9% of the nursing technicians presented the three burnout suggestive domains.

As described in Table 2, significant associations ($p \leq 0.05$) of some sociodemographic and professional variables and their respective burnout dimensions were observed: DE with the sector variables ($p = 0.015$), marital status ($p = 0.013$), health problems ($p = 0.001$) and level of satisfaction at work ($p = 0.001$); DS with the number of children ($p = 0.046$), health problems ($p = 0.011$) and level of satisfaction at work variables ($p = 0.001$); and BRP with the variables work sector ($p = 0.010$), number of jobs ($p = 0.013$) and level of satisfaction at work ($p = 0.002$).

DISCUSSION

The results obtained in this research evidenced a female predominance in the studied population. The nursing activities in health sector in hospital institutions are developed by females, as described in other studies^{13,14,18,23}. Among the gender aspects in these professionals' work activities, is it noteworthy the psychosocial implications related to double work journeys, including house chores and the care with the children, considering most of them had kids^{2,18}. The fact that most professionals work shifts, from which 60% of them are fixed shifts, constitutes an aggravating situation.

Workers' perception on work is fundamentally important for the manifestation of BS^{27,28}. The technicians stressed that the lack of professional recognition and the physical and emotional overload. The level of work satisfaction is an essentially subjective evaluation and it has a direct relation to the representation of workers on themselves about the importance of their work. Besides that, work recognition contributes for the psychic economy of individuals in between suffering and sickening¹.

The work of health professionals demands intense dedication and attention to the tasks at hand, constant improvement, and commitment into conciliating the need of their patients with their professional skills and the institution's structure¹⁹. Considering the particularities of this sector, the support received by the co-workers and the team is crucial for the psychic balance of these workers, including the elevated level of attention for the fulfillment of prescriptions and the restricted autonomy in decision making.

Given that the self-assessment on the importance of work had elevated averages, the nursing technicians value their profession, however, they need support of their co-workers and of a good teamwork in order to avoid getting sick, despite feeling a little underappreciated by the institution as for decision making. The BS is also a result of the quality of the relation between professional and their interaction with the work environment⁷, which includes the clientele. The kind of relationship between people in the organization is as important as the clientele assisted²⁹.

In relation to the BS, it was observed that one third of the studied population had already had symptoms for one of the three dimensions of the syndrome. This indicates that the sickening process could be in course. The results presented in Table 1 were similar to the ones found by Lorenz¹⁴ and by Lautert¹³ in the researches conducted with nurses in hospital institutions.

The fact that 5.9% of the nursing technicians were diagnosed with BS from the criteria used in this research is concerning. These professionals are active in attending patients, making them more likely to make mistakes during care and to the worsening of their health condition. In the study carried out by Lorenz¹⁴, the prevalence of BS was 7.3% among nurses. The research conducted by França and Ferrari¹⁶ found 9.6% of BS among nursing professionals and 4.4% among technicians and auxiliary nurses. A study made by Zanatta¹⁹, in a onco-hematological children's hospital, in Campinas, São Paulo, evidenced a 5.3% prevalence among the 95 nursing technicians in the sample.

As for the work sector of nursing technicians, it was observed a significant correlation of this variable with the ED BRP dimensions. The sector which contributed the most for the elevated number of professionals with BS characteristics were the surgery Center, the emergency and the intensive care unit (ICU). There is a great emotional demand in these sectors, whether by the severity of patients' conditions or by the risk of complications during procedures. Also, the complexity of the tasks and the need to obtain short term results is very intense. Some studies have shown the relation or the influence of the kind of expertise/sector of work in the development of the BS¹⁴.

Regarding the significant association observed between marital status and the ED dimension, it was observed that most subjects with high scores in it lived without a partner. Some author stress that having a stable emotional relationship may influence as a protective variable for a lower propensity to burnout^{5,7}. However, the quality of this relationship and having or not children may also have a significant influence in the matter.

There was an association of the nursing technicians with more than one job to the BRP dimension, characterized by the feeling the worker has on assessing themselves negatively. In this case, the work overload and the difficulty in coping with two Jobs may contribute to the alienation process and the apathy of workers with double shift journeys at work¹⁷.

It was also observed a significant association between the having children variable and the DS dimension. Individuals with children have lower burnout rates when compared to workers with no kids, possibly due to the association of parenthood to higher responsibility, maturity, stability and more realistic expectations⁴. Lorenz¹⁴, in their study with nurses, found a significant association between children and the DS and BRP domains.

Throughout the study, some limitations were observed, such as the absence of Brazilian validation of the MBI-HSS specifically for the nursing technicians category, as well as the cutoff point criteria for such. Also, the possibility of biases between participants is recognized, once workers who are away from work, for medical reasons

or vacation, were excluded from the research, thus the studied population may have considered only “healthy workers”. These aspects may contribute for the findings to be underestimated in relation to reality.

CONCLUSION

Within the limits of the Maslach Burnout Inventory and the collective approach, it was observed that the nursing technicians in the sample lived dimensions of the Burnout Syndrome. According to the cutoff score of the quartiles, 5.9% of the nursing technicians presented burnout scores in all three dimensions (ED, DS and BRP); 23.6% of the sample had elevated ED levels; 21.9% high DS and 29.9% at BRP.

The work in health ends up demanding intense and prolonged attention from the professionals to people who are in needy and dependency situations. For the nursing technicians, the close contact with difficult dealing patients (with severe conditions, depressed, hostile and claimant ones) and their fear of making mistakes during care are additional chronic stress factors. Although the precise BS diagnosis is clinical and individual, the results obtained in this study may be considered as an alert for the institution as for the sickening of nursing technicians and a risk for all the other health professionals.

Most part of the studied population is female, middle aged, living with a partner, with children, with professional experience, working fixed shifts, having a positive impression on the importance of the work they perform and feeling satisfied with their profession.

There was a significant association of the burnout syndromes with the following variables: marital status, having children, work sector, number of Jobs, having health problems and level of satisfaction at work.

The feedback from this study to the participants and to the hospital administration includes short, medium and long term actions, in the overall organization of the work, and specifically in the respective sectors for the reduction and control of some stressful factors which promote suffering in order to prevent other workers to get sick.

The importance of promoting a systematized and permanent search for sickened workers by BS is emphasized. It is also noteworthy the relevance of compulsively notifying burnout cases as part of the mental disorders related to work, according to the established legislation.

It is recommended, for the Institution, to enable the discussion with the subjects of the research on the potential factors by which the organization of work may trigger psychic sickness and to provide psychological support for the whole nursing team and other health professionals in the monitoring and assessment of precocious intervention forms.

Based on the proposed aspects and within the limits of the adopted instruments, we conclude that there is an important vulnerability of nursing technicians to the BS dimensions. These findings reaffirm the importance of epidemiological investigations, the longitudinal tracking of these professionals and the definition of proper intervention and prevention lines for this phenomenon.

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